



Report of Test

LLIA001630-006

Roadway/Area Light Distribution Photometry Test Report

Catalog Number: WPA-40W-PCTS-BZ-PC - 40W and 5000K Setting

Surface mounted wall pack, cast aluminum housings, clear plastic enclosure with perimeter prisms, linear lens above each row of LEDs with vertical linear micro prisms. Aimed straight down.

112 LEDs, 48 cool white and 64 warm white LEDs on white circuit board

One BQ BQE55-0400-102-PVF-PS LED driver



Prepared For:

Topaz Lighting Corp

925 Waverly Avenue

Holtsville, NY 11742, USA

Performance Summary

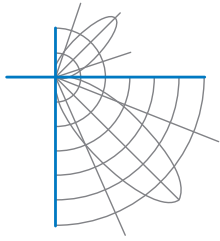
Input Voltage	120.0 Vac	Luminous Flux	4951.8 Lumens
Input Current	0.3312 A	Total Efficacy	125.7 Lm/W
Input Power	39.40 W		
Frequency	60.00 Hz		
Power Factor	0.991	Roadway Type	Area Light
Current THD	10.3 %	IES BUG Rating	B2 - U0 - G1

This test report was issued by LightLab International Allentown, LLC without alterations or erasures.

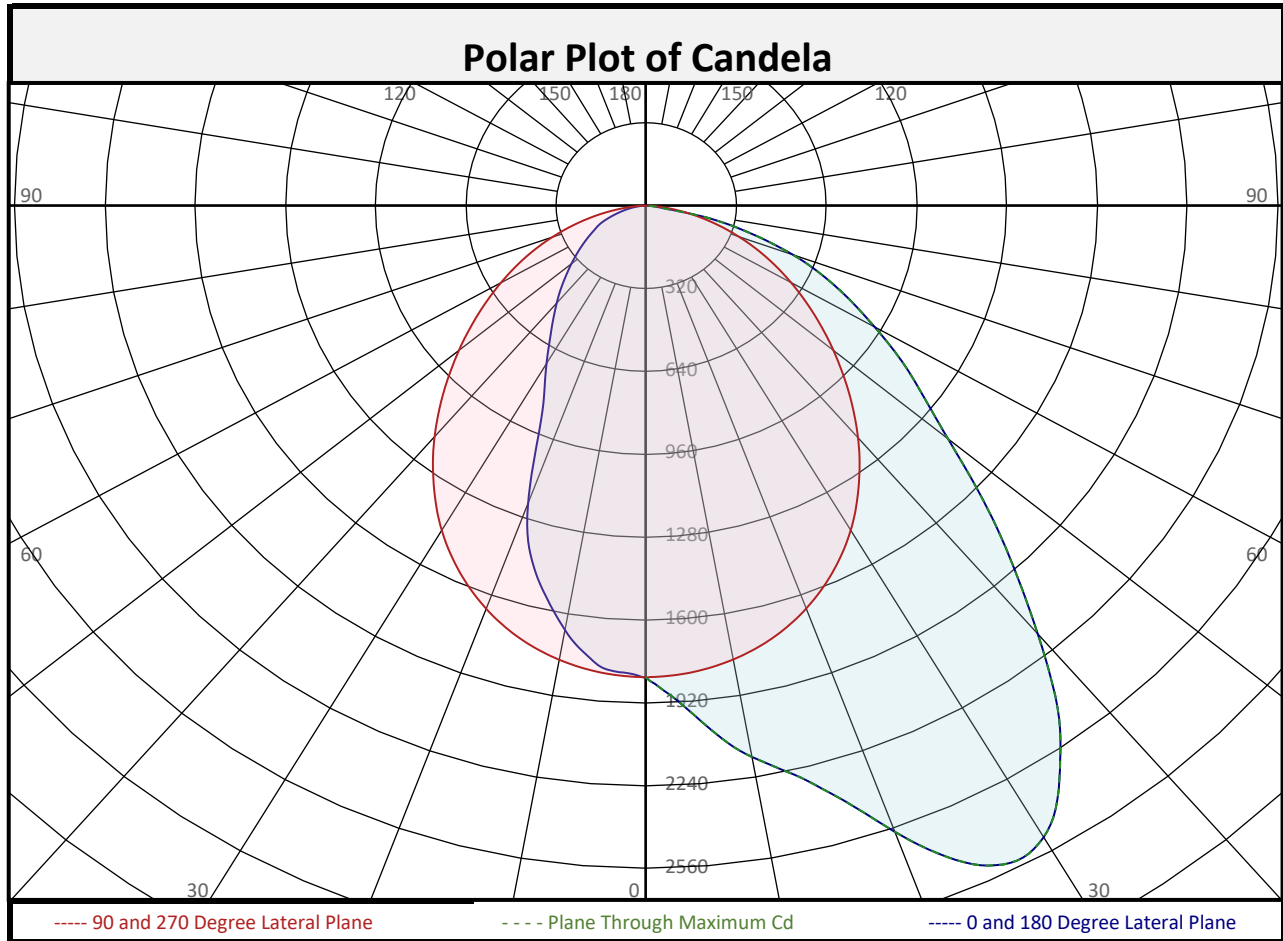
Test date: 01/13/2022

Report date: 01/14/2022

Signed: _____

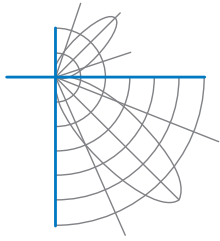


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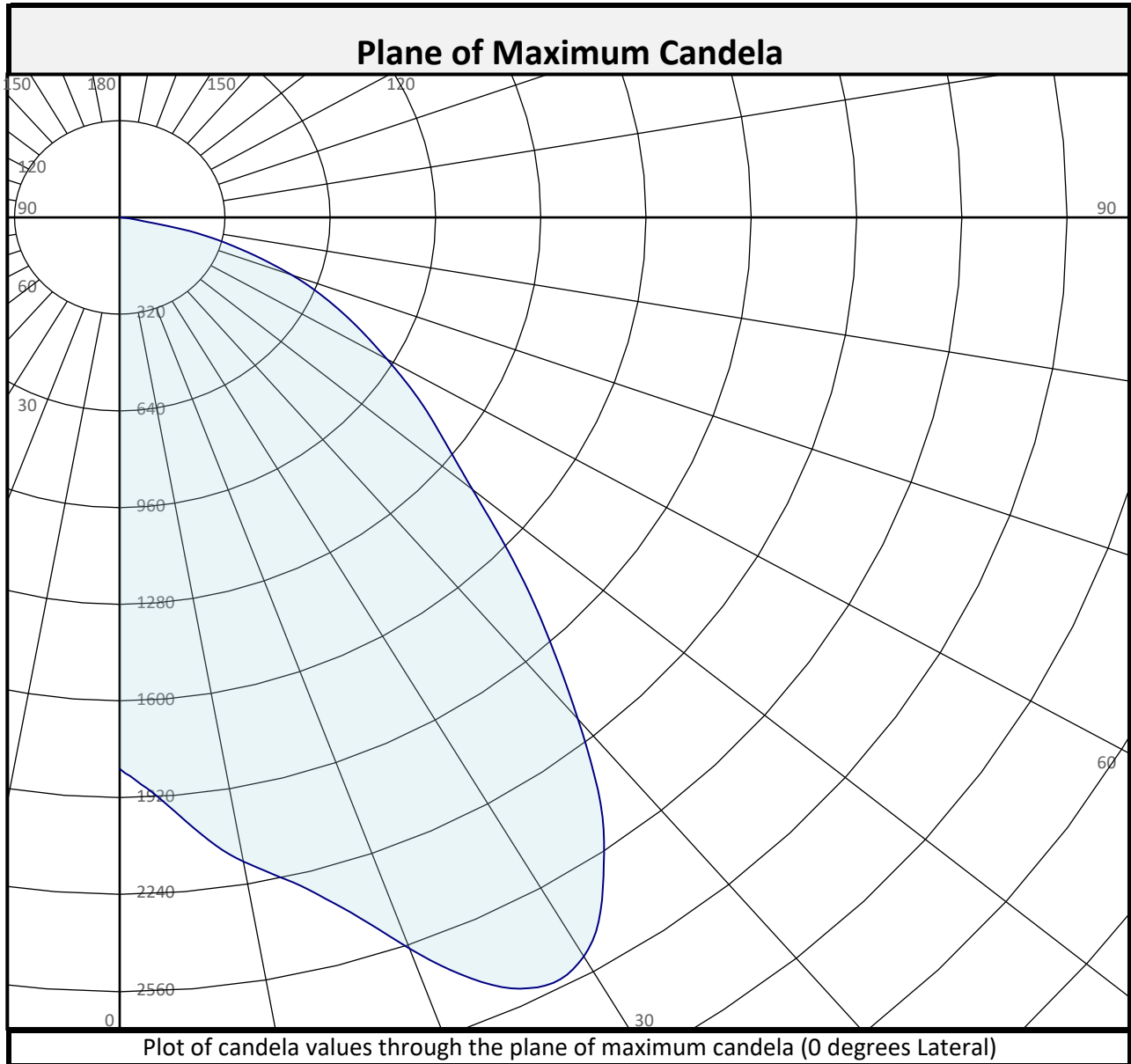
Zonal Flux Summary

Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total	Zone (Deg Vert)	Flux (Lumens)	Percent of Total
0-10	176.9	3.6%	90-100	0.0	0.0%	0-20	695.4	14.0%
10-20	518.4	10.5%	100-110	0.0	0.0%	0-30	1491	30.1%
20-30	796.0	16.1%	110-120	0.0	0.0%	0-40	2436	49.2%
30-40	944.3	19.1%	120-130	0.0	0.0%	0-60	4090	82.6%
40-50	907.2	18.3%	130-140	0.0	0.0%	0-80	4905	99.1%
50-60	746.7	15.1%	140-150	0.0	0.0%	10-90	4775	96.4%
60-70	533.2	10.8%	150-160	0.0	0.0%	20-50	2648	53.5%
70-80	282.3	5.7%	160-170	0.0	0.0%	40-90	2516	50.8%
80-90	46.7	0.9%	170-180	0.0	0.0%	60-90	862.2	17.4%
0-90	4952	100.0%	90-180	0.0	0.0%	0-180	4952	100.0%

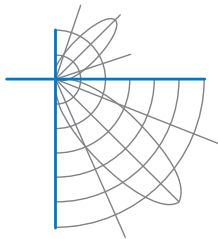


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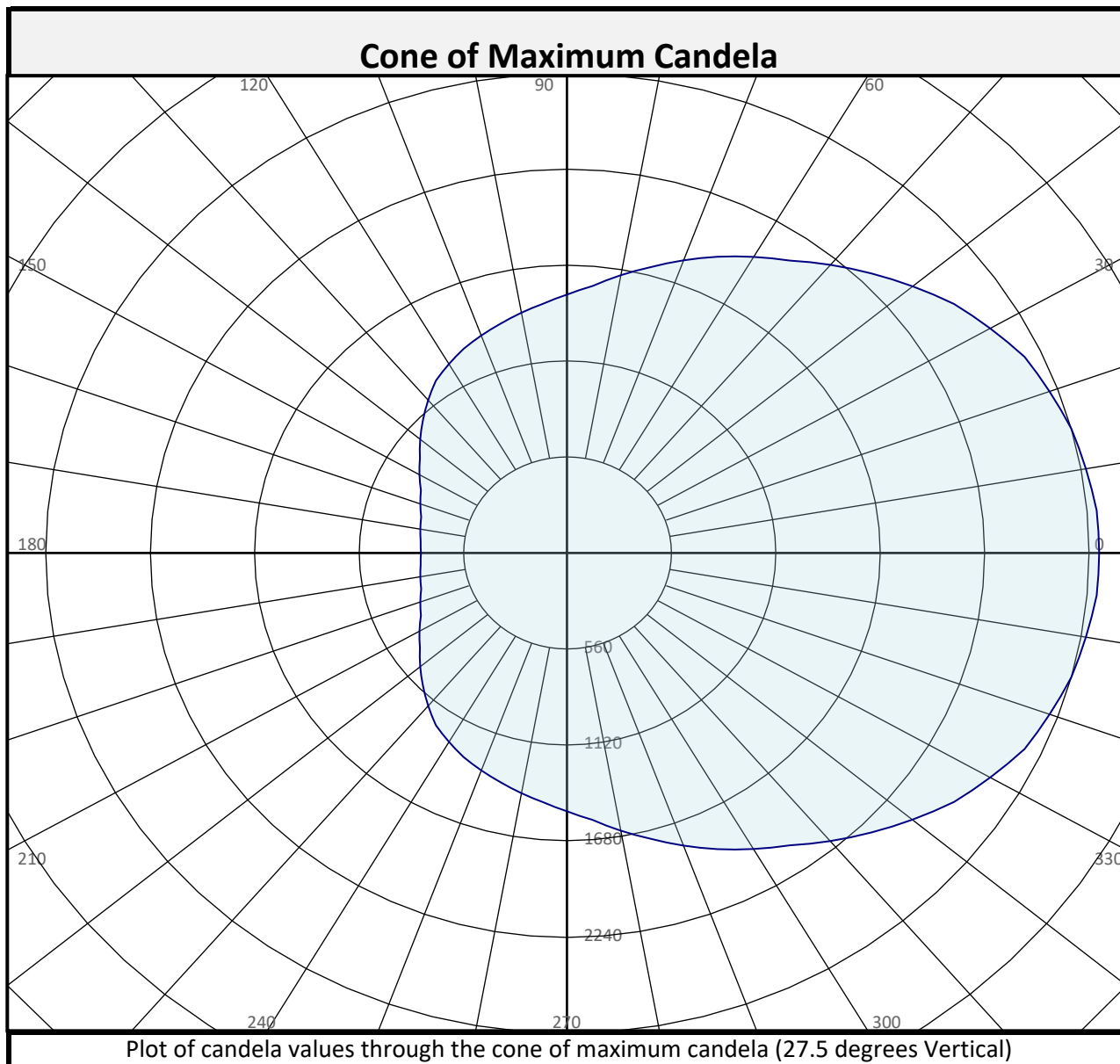
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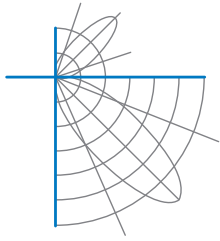
Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3437.3	69.4%	0.0	0.0%	3437.3	69.4%
House Side	1514.5	30.6%	0.0	0.0%	1514.5	30.6%
Total	4951.8	100.0%	0.0	0.0%	4951.8	100.0%



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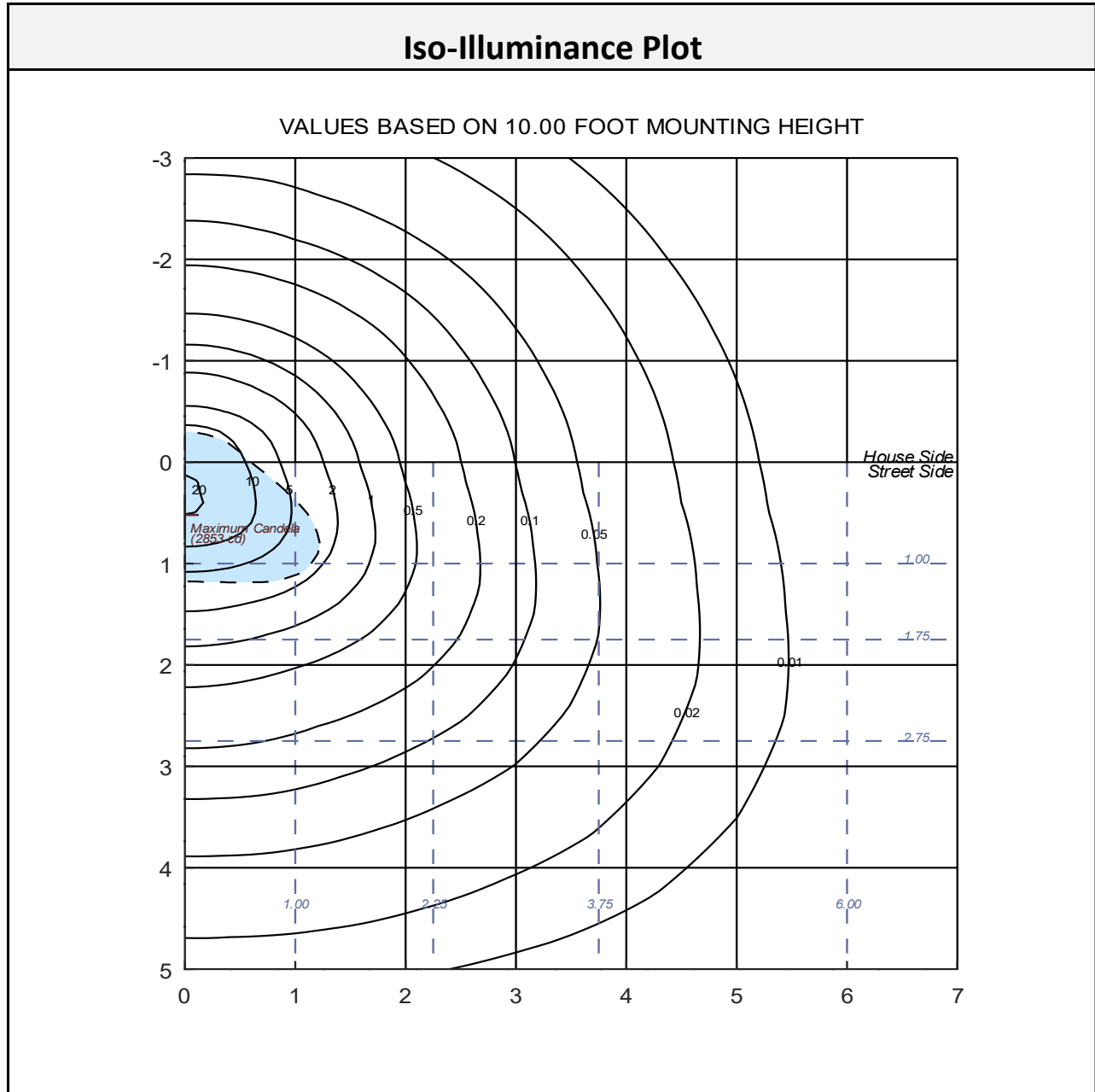


Street and House Side Flux Summary						
	Downward		Upward		Total	
	Lumens	% of Total	Lumens	% of Total	Lumens	% of Total
Street Side	3437.3	69.4%	0.0	0.0%	3437.3	69.4%
House Side	1514.5	30.6%	0.0	0.0%	1514.5	30.6%
Total	4951.8	100.0%	0.0	0.0%	4951.8	100.0%

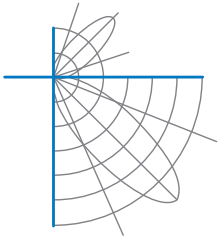


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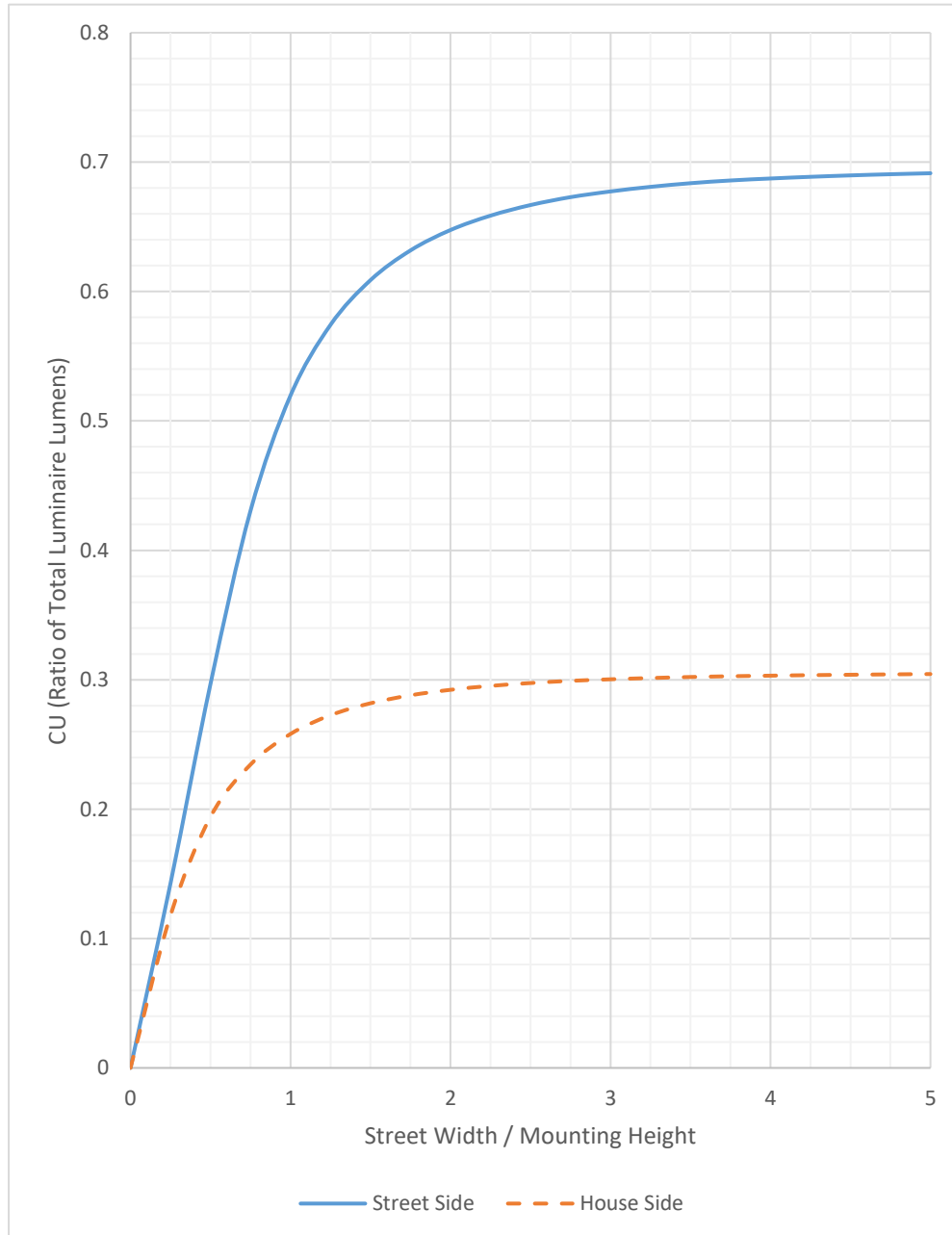


The isofootcandle values shown in the plot above are based on a mounting height of $h = 10.0$ feet. Grid values show multiples of mounting height. The isoilluminance contour lines are expressed in units of footcandles. The values expressed are based on the direct light from a single unit without the contribution of room reflections.



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Coefficients of Utilization Plot

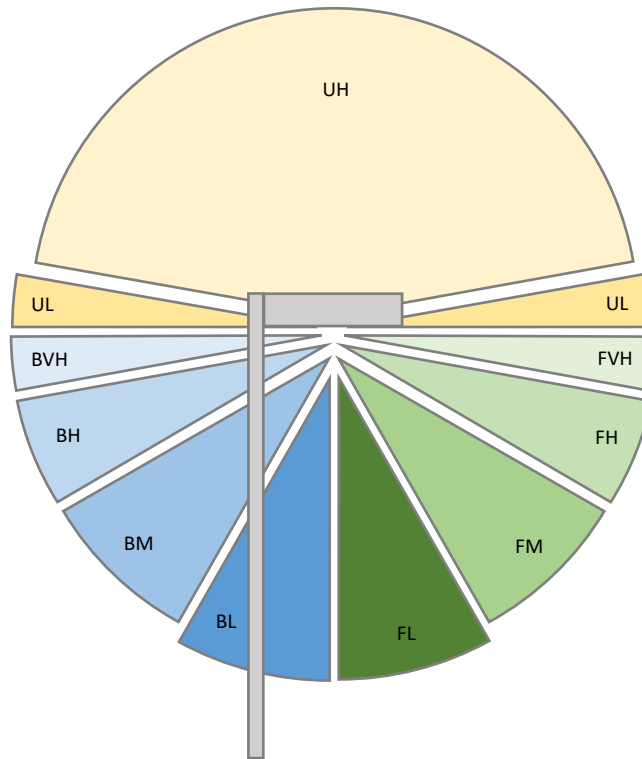




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LCS Tables and Bug Classification



Back Light

BL - Back Low (0°-30°)	583.8 Lm
BM - Back Mid (30°-60°)	701.3 Lm
BH - Back High (60°-80°)	212.8 Lm
BVH - Back Very High (80°-90°)	16.6 Lm

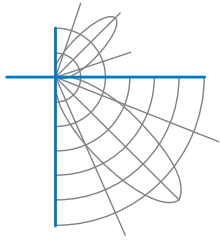
Forward Light

FL - Forward Low (0°-30°)	907.6 Lm
FM - Forward Mid (30°-60°)	1896.9 Lm
FH - Forward High (60°-80°)	602.7 Lm
FVH - Forward Very High (80°-90°)	30.1 Lm

Uplight

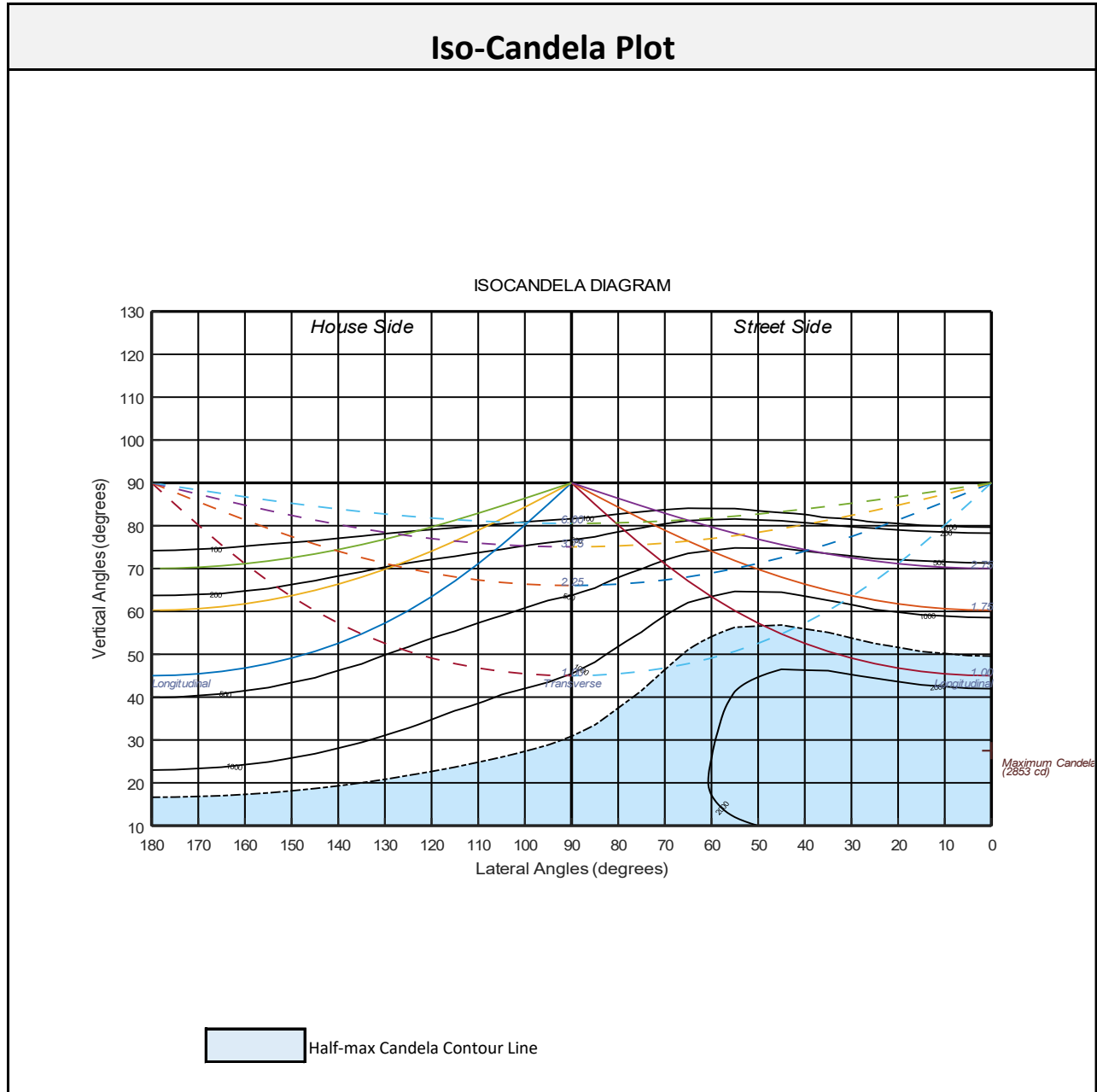
UL - Upward Low (90°-100°)	0.0 Lm
UH - Upward High (100°-180°)	0.0 Lm

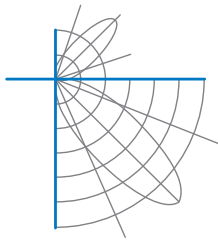
BUG Ratings: B2 - U0 - G1



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Iso-Candela Plot



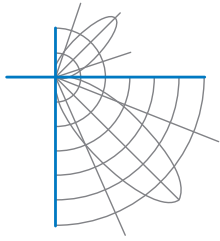


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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	0	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823
	2.5	1889	1882	1882	1878	1872	1862	1853	1841	1831	1822	1818
	5	1976	1968	1962	1951	1932	1910	1887	1864	1838	1820	1810
	7.5	2077	2069	2059	2039	2008	1970	1928	1884	1844	1811	1797
	10	2162	2154	2142	2119	2080	2030	1970	1905	1844	1798	1780
	12.5	2232	2224	2208	2180	2137	2079	2007	1924	1842	1780	1757
	15	2316	2307	2281	2239	2185	2118	2035	1937	1836	1757	1729
	17.5	2429	2420	2381	2315	2231	2146	2058	1946	1824	1728	1695
	20	2572	2563	2509	2415	2295	2174	2068	1949	1808	1694	1656
	22.5	2709	2701	2640	2528	2377	2213	2073	1942	1787	1655	1612
	25	2812	2806	2746	2633	2460	2259	2078	1927	1760	1612	1562
	27.5	2853	2850	2799	2707	2533	2307	2083	1907	1726	1564	1508
	30	2821	2821	2791	2725	2579	2344	2085	1881	1686	1511	1448
	32.5	2719	2723	2721	2692	2586	2366	2083	1847	1641	1452	1383
	35	2566	2572	2592	2609	2544	2367	2077	1808	1590	1387	1313
	37.5	2387	2394	2431	2480	2462	2330	2059	1768	1532	1319	1242
	40	2166	2175	2236	2326	2351	2265	2023	1722	1466	1248	1167
	42.5	1956	1965	2029	2145	2225	2178	1974	1668	1399	1175	1090
	45	1763	1770	1832	1958	2075	2070	1905	1604	1327	1098	1013
	47.5	1573	1581	1645	1779	1914	1950	1818	1536	1251	1021	937
	50	1399	1407	1469	1599	1752	1817	1718	1462	1172	944	864
	52.5	1263	1267	1313	1427	1589	1672	1610	1377	1089	867	792
	55	1153	1157	1183	1274	1433	1529	1491	1286	1006	794	723
	57.5	1046	1051	1073	1137	1282	1388	1367	1190	921	721	656
	60	938	941	965	1020	1138	1248	1242	1088	836	650	592
	62.5	840	841	857	907	1004	1107	1112	981	750	580	529
	65	748	749	758	796	881	973	982	874	665	512	469
	67.5	655	656	665	690	764	843	855	763	580	445	408
	70	556	559	572	592	653	719	732	653	496	380	349
	72.5	448	452	473	493	543	601	610	545	414	316	291
75	344	347	368	396	433	487	491	439	334	256	236	
77.5	241	243	262	294	323	372	378	338	258	198	182	
80	80	81	105	162	210	256	268	243	185	142	131	
82.5	40	41	46	54	73	139	160	154	119	91	84	
85	4	4	7	23	32	40	52	71	59	46	42	
87.5	0	0	0	0	1	1	3	10	12	12	11	
90	0	0	0	0	0	0	0	0	0	0	0	

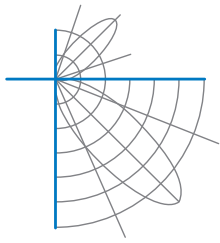


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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	0	5	15	25	35	45	55	65	75	85	90	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



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Luminous Intensity (Candela) Table

	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
0	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	1823	
2.5	1818	1814	1807	1802	1803	1802	1802	1802	1800	1800	1804	
5	1810	1802	1793	1789	1792	1792	1792	1790	1787	1788	1791	
7.5	1797	1785	1778	1775	1772	1765	1755	1743	1735	1733	1735	
10	1780	1766	1758	1747	1734	1715	1697	1681	1669	1663	1664	
12.5	1757	1741	1728	1706	1681	1654	1628	1604	1586	1580	1580	
15	1729	1711	1686	1655	1619	1583	1550	1523	1502	1493	1492	
17.5	1695	1674	1637	1594	1550	1506	1468	1433	1405	1390	1388	
20	1656	1630	1581	1529	1478	1427	1374	1320	1270	1240	1235	
22.5	1612	1580	1520	1459	1403	1337	1253	1160	1083	1042	1035	
25	1562	1523	1454	1389	1321	1224	1102	992	918	882	876	
27.5	1508	1461	1384	1314	1227	1094	964	865	810	789	784	
30	1448	1395	1313	1237	1118	974	854	773	733	716	712	
32.5	1383	1326	1240	1155	1011	875	766	701	668	650	647	
35	1313	1253	1166	1066	916	792	694	640	609	593	591	
37.5	1242	1180	1091	976	835	719	634	587	558	544	542	
40	1167	1104	1017	889	764	654	581	539	513	500	498	
42.5	1090	1029	942	812	699	599	535	495	472	459	457	
45	1013	955	865	743	637	549	492	456	432	419	417	
47.5	937	882	791	679	581	504	453	418	394	382	380	
50	864	813	719	619	531	464	417	381	360	348	346	
52.5	792	745	653	561	486	426	381	347	327	316	314	
55	723	680	591	508	443	389	346	316	297	287	286	
57.5	656	618	534	457	402	353	314	286	268	260	258	
60	592	559	477	411	363	318	283	257	241	234	233	
62.5	529	501	424	367	325	285	253	230	216	210	210	
65	469	443	374	325	289	252	224	203	192	191	191	
67.5	408	385	326	284	254	221	196	178	172	170	169	
70	349	329	280	245	219	191	169	153	150	144	142	
72.5	291	274	235	206	183	160	142	130	124	117	116	
75	236	222	191	167	148	130	115	107	97	93	93	
77.5	182	171	148	129	115	101	90	82	74	71	71	
80	131	123	107	93	83	73	65	58	53	51	51	
82.5	84	78	69	60	54	48	42	38	35	33	33	
85	42	39	35	31	28	25	23	20	18	18	17	
87.5	11	11	10	10	9	8	7	7	6	5	5	
90	0	0	0	0	0	0	0	0	0	0	0	

Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.

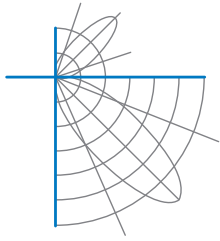


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Luminous Intensity (Candela) Table

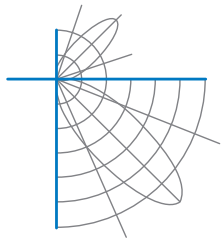
	Lateral (C-Plane) Angles											
	90	95	105	115	125	135	145	155	165	175	180	
Vertical (Gamma) Angles - Data was acquired in 0.5° increments, 2.5° increments shown.	90	0	0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	
167.5	0	0	0	0	0	0	0	0	0	0	0	
170	0	0	0	0	0	0	0	0	0	0	0	
172.5	0	0	0	0	0	0	0	0	0	0	0	
175	0	0	0	0	0	0	0	0	0	0	0	
177.5	0	0	0	0	0	0	0	0	0	0	0	
180	0	0	0	0	0	0	0	0	0	0	0	



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Additional Pictures of Test Subject





Report of Test

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Test Distance 9.5 m
Ambient Temperature 25.0 °C

Notes

The laboratory has not participated in the selection of samples to be tested. All testing is performed on the understanding that the significance of the report is limited to the extent that the test sample is representative of production units.

Tested in accordance with the applicable sections of publications: IES LM-79-19. Format of reports and angular increments based on IES LM-31-20 and LM-10-20.

The luminous intensity values, and other derived quantities, contained in this report are based on absolute data.

Prorating the performance of the sample for the use of other component combinations (such as lamp / LED / Ballast / driver), or for use in different environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections.

Photometric intensity values are reported using the IES C-Type spherical coordinate system as defined in IES LM-75-19.

This report may contain data that are not covered by the NVLAP accreditation. Quantities marked with ‡ are not covered.

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

The device under test emits no detectable uplight, as defined by ANSI/IES LM-31-20. For the purpose of this report, certain non-zero uplight readings, attributable to instrument artifacts, have been assigned a zero value.